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CLAIMS:

What is claimed is:

1.   A method for supporting a tape subsystem and a disk subsystem on a shared host adapter, the method comprising:

designating one of a plurality of host adapters as a designated host adapter for a tape subsystem;

balancing input/output activity for one or more disk subsystems across the plurality of host adapters;

determining whether the tape subsystem is under run;

responsive to the tape subsystem being under run, identifying at least one path for a first disk subsystem that uses the designated host adapter; and

reducing input/output activity for the first disk subsystem using the identified at least one path.

2.   The method of claim 1, further comprising:

monitoring input/output activity for each host adapter and for the tape subsystem and the disk subsystem.

3.   The method of claim 2, wherein determining whether the tape subsystem is under run includes determining whether input/output activity for the tape subsystem is below a predetermined threshold.

4.   The method of claim 2, further comprising:

determining whether the tape subsystem is over run;

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determining whether input/output activity for a second disk subsystem is high; and

responsive to the tape subsystem being over run and input/output activity for the second disk subsystem being high, increasing input/output activity for the second disk subsystem using at least one path that uses the designated host adapter.

5.   The method of claim 4, wherein determining whether input/output activity for the second disk subsystem is high includes determining whether input/output activity for the second disk subsystem exceeds a predetermined threshold.

6.   The method of claim 4, wherein determining whether the tape subsystem is over run includes determining whether input/output activity for the tape subsystem exceeds a predetermined threshold.

7.   The method of claim 4, wherein determining whether the tape subsystem is over run includes determining whether at least one buffer overflow error is received from the tape subsystem.

8.   The method of claim 1, wherein determining whether the tape subsystem is under run includes determining whether at least one input/output starvation error is received from the tape subsystem.

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9.   The method of claim 1, wherein reducing input/output activity for the first disk subsystem using the identified at least one path includes decreasing a priority of the at least one path.

10.   The method of claim 1, wherein reducing input/output activity for the first disk subsystem using the identified at least one path includes disabling the at least one path.

11.   An apparatus for supporting a tape subsystem and a disk subsystem on a shared host adapter, the apparatus comprising:

    means for designating one of a plurality of host adapters as a designated host adapter for a tape subsystem;

    means for balancing input/output activity for one or more disk subsystems across the plurality of host adapters;

    means for determining whether the tape subsystem is under run;

    means, responsive to the tape subsystem being under run, for identifying at least one path for a first disk subsystem that uses the designated host adapter; and

    means for reducing input/output activity for the first disk subsystem using the identified at least one path.

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12. The apparatus of claim 11, further comprising:

    means for monitoring input/output activity for each host adapter and for the tape subsystem and the disk subsystem.

13. The apparatus of claim 12, wherein the means for determining whether the tape subsystem is under run includes means for determining whether input/output activity for the tape subsystem is below a predetermined threshold.

14. The apparatus of claim 12, further comprising:

    means for determining whether the tape subsystem is over run;

    means for determining whether input/output activity for a second disk subsystem is high; and

    means, responsive to the tape subsystem being over run and input/output activity for the second disk subsystem being high, for increasing input/output activity for the second disk subsystem using at least one path that uses the designated host adapter.

15. The apparatus of claim 14, wherein the means for determining whether input/output activity for the second disk subsystem is high includes means for determining whether input/output activity for the second disk subsystem exceeds a predetermined threshold.

16. The apparatus of claim 14, wherein the means for determining whether the tape subsystem is over run

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includes means for determining whether input/output activity for the tape subsystem exceeds a predetermined threshold.

17. The apparatus of claim 14, wherein the means for determining whether the tape subsystem is over run includes means for determining whether at least one buffer overflow error is received from the tape subsystem.

18. The apparatus of claim 11, wherein the means for determining whether the tape subsystem is under run includes means for determining whether at least one input/output starvation error is received from the tape subsystem.

19. The apparatus of claim 11, wherein the means for reducing input/output activity for the first disk subsystem using the identified at least one path includes means for decreasing a priority of the at least one path.

20. The apparatus of claim 11, wherein the means for reducing input/output activity for the first disk subsystem using the identified at least one path includes means for disabling the at least one path.

21. A computer program product, in a computer readable medium, for supporting a tape subsystem and a disk subsystem on a shared host adapter, the computer program product comprising:

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instructions for designating one of a plurality of host adapters as a designated host adapter for a tape subsystem;

instructions for balancing input/output activity for one or more disk subsystems across the plurality of host adapters;

instructions for determining whether the tape subsystem is under run;

instructions, responsive to the tape subsystem being under run, for identifying at least one path for a first disk subsystem that uses the designated host adapter; and

instructions for reducing input/output activity for the first disk subsystem using the identified at least one path.